

REMARKS

Summary of the Office Action

Claims 1, 3- 8, and 14-19 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,445,434 to *Takato et al.* in view of U.S. Patent No. 6,133,974 to *Ishii et al.*

Summary of the Response to the Office Action

Claims 1, 7, 8, and 16-19 have been amended. No new matter has been introduced.

Accordingly, claims 1, 4-19 are presently pending, with claims 9-13 being withdrawn.

Rejections Under 35 U.S.C. § 103(a)

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The non-final Office Action dated April 24, 2007 has been received and its contents carefully reviewed.

Claims 1, 7, 8, and 16-19 are hereby amended, and claim 3 has been canceled. Accordingly, claims 1, 4-19 are presently pending, with claims 9-13 being withdrawn. Reexamination and reconsideration of the pending claims is respectfully requested.

In the pending Office Action, claims 1, 3-8 and 14-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US 6,445,434(hereinafter “Takato”) in view over US 6,133,974(hereinafter “Ishii”).

The rejection of claims 1 and 8 are respectfully traversed and reconsideration is requested. Claim 1 is allowable over the cited references in that claim 1 recites a combination of elements including, for example, “disposing a first mask and a second mask, each of which has opening regions and blocking regions arranged in alternating fashion in vertical direction and

horizontal direction corresponding to liquid crystal cells of the liquid crystal display; and injecting a ferroelectric liquid crystal material within the liquid crystal panel; arranging the first mask having opening regions patterned on a first alignment film formed on an upper plate of the liquid crystal panel; rubbing the first alignment film of the upper plate through the first mask; arranging the second mask having opening regions on a second alignment film formed on a lower plate of the liquid crystal panel; and rubbing the second alignment film of the lower plate in the same direction as the rubbing direction of the alignment film of the upper plate through the second mask, wherein each of the openings is substantially the same size as a liquid crystal cell”.

Further, Claim 8 is allowable over the cited references in that claim 8 recite a combination of elements including, for example, “aligning an upper plate of a liquid crystal panel by using a first mask having a first plurality of opening regions patterned thereon; rubbing a first alignment film of the upper plate through the first mask along a first direction; aligning a lower plate of the liquid crystal panel by using a second mask having a second plurality of opening regions patterned thereon; rubbing a second alignment film of the lower plate through the second mask along the first direction; assembling the upper plate and the lower plates of the liquid crystal panel; and injecting a ferroelectric liquid crystal material between the assembled the upper and the lower plates of the liquid crystal panel, wherein each of openings of the first and second masks is substantially the same size as a liquid crystal cell”.

None of the cited references including Takato and Ishii, singly or in any combination, teach or suggest at least these features of the claims 1 and 8.

In the present invention, alignment process of only one time is applied to each alignment film of an upper plate and a lower plate. On the other hand, in Takato, first rubbing process is applied to an entire alignment film of a lower plate, and then second rubbing process is applied

to the alignment film of the lower in another aligning direction using the mask. Further, in Takato, rubbing process of two times are applied to the alignment film of an upper plate (see Column 6 lines 18-48).

In the present invention changes an aligning direction for each liquid crystal cell. In Takato, subdivided area a and b formed into a square with sides of about 2.5mm. Herein, 2.5mm is sufficiently larger than the size of a pixel.(see Claim 1, Column 6 lines 11-16). Herein, 2.5mm is far more than the liquid crystal cell.

In Ishii, each of alignment film is entirely rubbed, and then rubs is rubbed in another direction using a PR pattern (or strip pattern)(see Column 39 lines 6-51). Therefore, in Ishii, each of the alignment film is rubbed at two times using the PR pattern not the mask. In the present invention, an aligning direction for each liquid crystal cell is changed. However, Ishii has a plurality of areas of which aligning directions are different from each other for each pixel (see Column 38 lines 57 to Column 39 line 6). In Ishii, the size of one aligning direction area is smaller than that of the pixel (or liquid crystal cell), and is a half of the size of the pixel in the drawings. However, in the present invention, one aligning direction area corresponds to one liquid crystal cell.

The rejection of claims 4-7 and 14-19 are respectfully traversed and reconsideration is requested. Claims 4-7 and 14-19 depend from claim 1 or claim 8, respectively, and necessarily contain all of the limitations of claim 1 or 8.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Conclusion

Applicants believe no fees are due at this time. If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0310. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

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